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EXAMINER
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ART UNIT	PAPER NUMBER
2176	

DATE MAILED: 02/25/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	**Applicant(s)**
Office Action Summary	09/061,706	KEPHART ET AL.
	Examiner	**Art Unit**
	William L. Bashore	2176

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _29 November 2002_ .

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _11,13-21,23-33 and 37-68_ is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) _11,13-21,23-33 and 37-68_ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

1.   This action is responsive to communications: RCE and pre-amendment, both filed November

29,2002, to the original application filed **April 17,1998**, IDS filed June 15, 1998, and May 9, 2000.

2.   Claims 11, 13-21, 23-33, 44-45, 47- 51, 60-63 remain rejected under 35 U.S.C. 103(a) as being

unpatentable over Lewak and Herz.

3.   Claims 37-43, 46 remain rejected under 35 U.S.C. 103(a) as being unpatentable over Lewak,

Herz, and Lang.

4.   Claims 52, 56-59 remain rejected under 35 U.S.C. 103(a) as being unpatentable over Lewak,

Herz, and Netscape.

5.   Claims 53-55 remain rejected under 35 U.S.C. 103(a) as being unpatentable over Lewak, Herz,

Lang, and Netscape.

6.   Claims 11, 13-21, 23-33, 37-68 are pending. Claims 12, 34-36 have been cancelled. Claims 64-68

have been added. Claims 11, 61 are independent claims.

Continued Examination Under 37 CFR 1.114

7.   A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR

1.17(e), was filed in this application after final rejection. Since this application is eligible for continued

examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the

finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's

submission filed on November 29, 2002 has been entered.

Claim Rejections - 35 USC § 112

8.   **The following is a quotation of the second paragraph of 35 U.S.C. 112:**

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

9.   **Claims 14, 15, 16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.**

10.   **In regard to dependent claims 14, 15, 16,** claims 14, 15, 16 are vague and indefinite. Since said claims are dependent from claim 12 (now cancelled), the scope of the claimed limitations are unclear to the examiner.

Examiner's Notes

11.   The following set of rejections are based upon a possible interpretation of claims 14, 15, and 16 as each being dependent upon independent claim 11.

Claim Rejections - 35 USC § 103

12.   **The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:**

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

13.   **Claims 11, 13-21, 23-33, 44-45, 47- 51, 60-68 are rejected under 35 U.S.C. 103(a) as being**

unpatentable over Lewak et al. (hereinafter Lewak), U.S. Patent No. 5,544,360 issued August 1996,

in view of Herz, U.S. Patent No. 6,029,195 issued February 2000.

     In regard to independent claim 11, Lewak teaches a computer filing system utilizing various

file categories, said system automatically commencing to assist a user with said categorizing and

classifying (Lewak Abstract, also Figure 5 items 50, 60; compare with claim 11 *"an automated method"*

and *"an automated classifier"*).

     Lewak teaches suggesting file categories by correlating word patterns in a current file document

with category descriptions utilizing an FC Manager (Lewak, column 8 lines 6-15, column 9 lines 50-55;

compare with amended claim 11, *"classifying, with a classifier, a document..."*). Lewak does not

specifically teach obtaining a plurality of <u>most likely</u> categorical labels. However, Herz teaches a method

of generating for each user a customized rank-ordered listing of target objects most likely to be of interest

to that user (Herz column 7 lines 10-16; compare with claim 11 *"...to obtain a plurality of most likely*

categorical labels", and *"...from the plurality of most likely categorical labels"*). It would have been

obvious to one of ordinary skill in the art at the time of the invention to apply the method of Herz to the

method of Lewak, because of Herz's taught advantage of document suggestion, providing an efficient

method of allowing users to select articles of interest from a large set of articles (Herz column 2 lines 40-

42).

     Lewak teaches linking category descriptions "Sent", "Received", "Action", and "Urgent" to a

main category "E-Mail", so that said linking occurs when said category "E-Mail" is chosen, which

provides reasonable suggestion to one of ordinary skill in the art at the time of the invention of the use of

a categorization shortcut, since extra paths are created for said linked descriptions (Lewak column 15

lines 39-46; compare with claim 11 *"deriving a plurality of categorizations shortcuts..."*), which helps to

provide freedom from the restrictions imposed by present day computer filing systems (Lewak column 3 lines 62-65).

Lewak teaches a method of a user interface, comprising a category window with category descriptions and types (Lewak, column 8 lines 31-38; compare with claim 11, *"displaying to the user, a representation of the plurality of most likely categorical labels"*).

Lewak teaches a method whereby categories describing the current file can be selected by a user (Lewak, column 8 lines 61-65; compare with claim 11, *"receiving from the user, data representative of one or more selected categorical labels"*).

Lewak teaches a method whereby after category selection is completed by the user, the new category/file associations are stored within a File Information Directory (Lewak, column 8 lines 66-67, column 9 lines 1-4; compare with claim 11, *"labeling the document within the collection with the one or more selected categorical labels."*).

Lewak teaches a method of an FC Manager running as a background process, checking the path of a previously saved file during "null events" for categorization (Lewak column 7 lines 55-67). Lewak does not specifically teach a method of incrementally retraining a classifier. However, Herz teaches a method of categorizing text messages utilizing a user target profile interest summary, said summary is automatically updated on a continuing basis (Herz column 7 lines 15-17; compare with claim 11 *"incrementally retraining a classifier to adapt to modifications of the collection."*). It would have been obvious to one of ordinary skill in the art at the time of the invention to apply the method of Herz to the method of Lewak, because of Herz's taught advantage of updating profiles, providing a way to keep a user profile updated so that it dynamically responds to changing interests (Herz column 7 lines 16-18).

Lewak teaches a File Control (FC) Manager program running in the background of a session. During periods of idle (i.e. periods of inactivity), said Manager retrieves a previously saved file and check its path and categorize said file (category: "uncategorized") if not already categorized (Lewak column 7 lines 50-67; compare with claim 11 *"wherein the incremental retraining is performed using a lazy*

strategy for incrementally retraining the classifier "). Since deferring categorization in this manner is a form of lazy strategy, it would have been obvious to one of ordinary skill in the art at the time of the invention to apply Herz's retraining during Lewak's inactivity periods, so as to provide Lewak the benefit of increased performance during periods of high user activity.

In regard to dependent claim 13, Lewak teaches a method of opening a saved file and invoking an FC Manager with a "Categorize" command for category selection by the user (Lewak, column 8 lines 1-5; compare with claim 13).

In regard to dependent claim 14, Lewak teaches a method whereby upon the category of E-Mail is selected for a file, the user is given indication of related linked category descriptions (Lewak, column 15 lines 39-51; compare with claim 14).

In regard to dependent claim 15, Lewak teaches a method whereby linked category descriptions are indicated to the user by way of a distinctive style, or check mark, or a descriptive dialog box (Lewak, column 15 lines 5-55; compare with claim 15 lines 1-3, *"...labeling display buttons with the plurality of most likely categorical labels, and the displaying step comprises the step of displaying the labeled display buttons..."*).

Lewak teaches a method of categorizing an opened file at the point of a first save to disk (Lewak column 7 lines 55-67; compare with claim 15 line 3, *"...with the document."*).

In regard to dependent claim 16, Lewak teaches a method of a file manager display showing a column of file type category entries in alphabetical order, along with three other columns of categories, each column containing different entries in alphabetical order (Lewak, column 8 lines 31-38, Figure 5; compare with claim 16).

In regard to dependent claim 17, Lewak teaches a method whereby upon the selection of a categorize button on an open file, an FC Manager is run, producing a file manager display showing current categories (Lewak, column 8 lines 1-5, 31-38; compare with claim 17).

In regard to dependent claim 18, Lewak teaches a method whereby a "categorize" command is invoked by a user to run the FC Manager to categorize an open file (Lewak column 8 lines 1-5; compare with claim 18).

In regard to dependent claim 19, Lewak teaches a method whereby a "categorize" button is used to invoke the method as disclosed in claim 18 above (Lewak column 8 lines 1-3, column 9 lines 5-7; compare with claim 19).

In regard to dependent claim 20, Lewak teaches a method of a File Information Directory table (FID) comprising a set of columns containing file names, file locations, and categories associated with each file by a user (Lewak column 6 lines 16-22; compare with claim 20).

In regard to dependent claim 21, Lewak teaches a method of a file manager display showing categories and descriptions (Lewak column 8 lines 31-38). Lewak also discloses a method whereby linked categories of a selected category can be shown and selected (Lewak column 15 lines 39-51; compare with claim 21, *"receiving, from the user, data representative....the plurality of displayed categorizational shortcuts... "*). Lewak does not specifically teach a method of displaying (or selecting from) a standard list of all categorical labels. However, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Lewak to incorporate a standard list, because a "Full Lists" option is disclosed as an example of inhibiting category search contraction (Lewak column 12

lines 29-31; compare with claim 21 *"...displaying a standard list of all categorical labels..."*, and *"...or the standard lists."*). Applying this modification provides increased user selectability to the method of Lewak.

In regard to dependent claim 23, Lewak teaches a method whereby a user chooses a "categorize" command to re-categorize an already categorized file (Lewak column 9 lines 5-10; compare with claim 23).

In regard to dependent claim 24, claim 24 incorporates substantially significant subject matter as claimed in claim 20, and in further view of the following, is rejected along the same rationale.

Lewak teaches a method whereby a user makes a first save of a newly created file to disk (Lewak column 7 lines 55-57; compare with claim 24 *"receiving, from the user, addition data....into a tofolder"*).

Lewak teaches a method whereby a File Control system retrieves the file path previously saved, and analyzes the saved file for categorization (Lewak column 7 lines 58-67; compare with claim 24 *"re-training the classifier in response to the addition data."*).

In regard to dependent claim 25, Lewak does not specifically teach a method of assigning the added document to a tofolder during re-training. However, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Lewak to incorporate the method of assigning, because Lewak suggests a method whereby categories which describe a current file are selected, causing new entries to be created in the FID containing the file data (along with file path associations), and associated categories (Lewak column 6 lines 17-22, column 8 lines 61-67, column 9 lines 1-4; compare with claim 25), providing increased file versatility to the File Control method taught by Lewak.

In regard to dependent claim 26, claim 26 incorporates substantially similar subject matter as claimed in claim 47, and is rejected along the same rationale.

In regard to dependent claim 27, claim 27 incorporates substantially similar subject matter as claimed in claim 24, and in further view of the following, is rejected along the same rationale.

Lewak teaches a method of deleting a file, which impacts the integrity of the identifiers in the FID (Lewak column 14 lines 40-43, 51; compare with claim 27 *"receiving from the user, deletion data....from a fromfolder"*).

Lewak teaches a method whereby (on a Macintosh system), upon the deletion of a file, the Alias Record for the file is updated in the FID (Lewak column 14 lines 60-65; compare with claim 27 *"re-training the classifier in response to the deletion data."*).

In regard to dependent claim 28, Lewak does not specifically teach a method of unassigning the removed document from the fromfolder during re-training. However, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Lewak to incorporate the method of unassigning, because Lewak suggests a method whereby upon file deletion, the Alias Record is updated in the FID, keeping the FID current after each attempted access (Lewak column 14 lines 40-43, 51, 60-65; compare with claim 28), providing increased file versatility to the File Control method taught by Lewak.

In regard to dependent claim 29, claim 29 incorporates substantially similar subject matter as claimed in claim 26, and is rejected along the same rationale.

In regard to dependent claim 30, claim 30 incorporates substantially similar subject matter as claimed in claim 24, and in further view of the following, is rejected along the same rationale.

Lewak teaches a method of moving a file to another directory, which impacts the integrity of the identifiers in the FID (please see Lewak column 14 lines 40-43, 44; compare with claim 30 *"receiving from the user, move data....to a destination folder"*).

Lewak teaches a method whereby upon the moving of a file, a search is made to find the file, based upon creation date/time search criteria (Lewak column 14 lines 66-67, column 15 lines 1-7; compare with claim 30 *"re-training the classifier in response to the deletion data."*).

In regard to dependent claim 31, claim 31 reflects the combined subject matter of claims 25 and 28, and is rejected along the same rationale.

In regard to dependent claim 32, claim 32 reflects the combined subject matter of claims 26 and 29, and is rejected along the same rationale.

In regard to dependent claim 33, Lewak teaches a method whereby a selected file that has been categorized may by recategorized by clicking on a "Categorize" button (Lewak column 9 lines 5-10; compare with claim 33).

In regard to dependent claim 44, Lewak teaches a method whereby an FC Manager initializes all data structures involved by reading data from related data files (FCT and FTD tables), as well as previously saved "last used" values (Lewak column 7 lines 39-4; compare with claim 44).

In regard to dependent claim 45, claim 45 incorporates substantially similar subject matter as claimed in claim 20, and in further view of the following, is rejected along the same rationale.

Lewak teaches a method of a FID table read into the memory of a computer, said FID table containing file names, associated categories, and file locations (Lewak, column 6 lines 17-22, column 7 lines 39-42; compare with claim 45).

In regard to dependent claim 47, Lewak teaches a method whereby a file is categorized using a File Control Manager program, said program containing a File Identification table with file locations associated with file names (Lewak column 1 lines 28-29, 41-45, column 6 lines 17-22, column 8 lines 1-5). Lewak does not specifically teach a method of identifying excluded folders to be excluded from classification. However, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Lewak to incorporate excluded folders, because the method of exclusion is exemplified with search filter definitions, in which categories that find no data are excluded from subsequent pick list possibilities (Lewak column 10 lines 25-37; compare with claim 47). The taught advantage of exclusion provides increased categorical efficiency to the FID method as taught by Lewak.

In regard to dependent claim 48, Claim 48 incorporates substantially similar subject matter as claimed in claim 20, and in further view of the following, is rejected along the same rationale.

Lewak teaches a method of a FID table containing the last update time and date for a file (Lewak column 6 lines 17-22; compare with claim 48 *"determining a time of a last step of re-training"*).

Lewak teaches a method whereby, for each closed file, a conditional categorization is performed by checking if an FID entry exists with the same creation time and date, subsequently opening the Categories Window if time/date is not the same (Lewak column 8 lines 7-15; compare with claim 48 *"retraining the classifier"*, and *"modified after the determined time"*. Lewak does not specifically teach a method of retraining the classifier on each folder. However, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Lewak to incorporate the use of folders, because initial displayed editable category types is an example of the contents of a displayed file Manager

(Lewak column 8 lines 39-44; compare with claim 48 *"on each folder"*). The inclusion of folders

provides increased order to the retraining method taught by Lewak.

In regard to dependent claim 49, claim 49 incorporates substantially similar subject matter as

claimed in claims 20, 44 and 48, and is rejected along the same rationale.

In regard to dependent claim 50, Lewak teaches a method whereby a file is categorized using a

File Control Manager program (Lewak column 8 lines 1-5). Lewak does not specifically teach a method

whereby the classifying step uses the TF-IDF principle. However, Herz teaches a method whereby a

preferred adaptation/learning method is the TF-IDF principle (Herz column 14 lines 10-12; compare

with claim 50). It would have been obvious to one of ordinary skill in the art at the time of the invention

to apply the TF-IDF method of Herz to the method of Lewak, because of Herz's taught advantage of

adaptive weighting schemes, providing increased versatility to the categorization method as taught by

Lewak.

In regard to dependent claim 51, Lewak teaches a method whereby an opened file is

categorized by an FC system through the use of a "Categorize" command (Lewak column 8 lines 1-5).

Lewak does not specifically teach a method wherein an electronic document is an e-mail message.

However, it would have been obvious to one of ordinary skill in the art at the time of the invention to

modify Lewak to incorporate e-mail messages, because "E-Mail" is an example of a category disclosed

by Lewak (Lewak, column 15 lines 39-46; compare with claim 51). The incorporation of e-mail

messages provides increased versatility to the categorization method as taught by Lewak.

In regard to dependent claim 60, Lewak teaches a method whereby a File Control Manager is

invoked by opening and saving a file (Lewak, column 7 lines 55-60). Lewak does not specifically teach a

method whereby an electronic document comprises data sets that are not entirely viewable, but categorizable nevertheless. However, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Lewak to incorporate categorizable, yet partially hidden data sets, because shortening category description lists is an example of managing a higher level hierarchy to manage limited subsets of a complete category list, providing increased category manageability to the file method as disclosed by Lewak (Lewak, column 9 lines 60-67, column 10 lines 1-5; compare with claim 60).

In regard to dependent claim 61, Lewak teaches a method whereby category descriptions are stored as records of a random access data base file (Lewak column 5 lines 40-43; compare with claim 61 "*a program storage device*").

Lewak teaches a computer filing system utilizing various file categories, said system automatically commencing to assist a user with said categorizing and classifying (Lewak Abstract, also Figure 5 items 50, 60; compare with claim 61 "*automatedly assisting*" and "*an automated classifier*").

Lewak teaches a method of suggesting file categories by correlating word patterns in a current file document with category descriptions utilizing an FC Manager (Lewak, column 8 lines 6-15, column 9 lines 50-55; compare with amended claim 61, "*classifying, with a classifier, a document...*"). Lewak does not specifically teach obtaining a plurality of most likely categorical labels. However, Herz teaches a method of generating for each user a customized rank-ordered listing of target objects most likely to be of interest to that user (Herz column 7 lines 10-16; compare with claim 61 "*...to obtain a plurality of most likely categorical labels*", and "*...from the plurality of most likely categorical labels*"). It would have been obvious to one of ordinary skill in the art at the time of the invention to apply the method of Herz to the method of Lewak, because of Herz's taught advantage of document suggestion, providing an efficient method of allowing users to select articles of interest from a large set of articles (Herz column 2 lines 40-42).

Lewak teaches linking category descriptions "Sent", "Received", "Action", and "Urgent" to a main category "E-Mail", so that said linking occurs when said category "E-Mail" is chosen, which provides reasonable suggestion to one of ordinary skill in the art at the time of the invention of the use of a categorization shortcut, since extra paths are created for said linked descriptions (Lewak column 15 lines 39-46; compare with claim 61 *"deriving a plurality of categorizations shortcuts..."*), which helps to provide freedom from the restrictions imposed by present day computer filing systems (Lewak column 3 lines 62-65).

Lewak teaches a method of a user interface, comprising a category window with category descriptions and types (Lewak, column 8 lines 31-38; compare with claim 61, *"displaying to the user, a representation of the plurality of most likely categorical labels"*).

Lewak teaches a method whereby categories describing the current file can be selected by a user (Lewak, column 8 lines 61-65; compare with claim 61, *"receiving from the user, data representative of one or more selected categorical labels"*).

Lewak teaches a method whereby after category selection is completed by the user, the new category/file associations are stored within a File Information Directory (Lewak, column 8 lines 66-67, column 9 lines 1-4; compare with claim 61, *"labeling the document within the collection with the one or more selected categorical labels."*).

Lewak teaches a method of an FC Manager running as a background process, checking the path of a previously saved file during "null events" for categorization (Lewak column 7 lines 55-67). Lewak does not specifically teach a method of incrementally retraining a classifier. However, Herz teaches a method of categorizing text messages utilizing a user target profile interest summary, said summary is automatically updated on a continuing basis (Herz column 7 lines 15-17; compare with claim 61 *"incrementally retraining a classifier to adapt to modifications of the collection."*). It would have been obvious to one of ordinary skill in the art at the time of the invention to apply the method of Herz to the

method of Lewak, because of Herz's taught advantage of updating profiles, providing a way to keep a

user profile updated so that it dynamically responds to changing interests (Herz column 7 lines 16-18).

Lewak teaches a File Control (FC) Manager program running in the background of a session.

During periods of idle (i.e. periods of inactivity), said Manager retrieves a previously saved file and check

its path and categorize said file (category: "uncategorized") if not already categorized (Lewak column 7

lines 50-67; compare with claim 61 *"wherein the incremental retraining is performed using a lazy*

strategy for incrementally retraining the classifier "). Since deferring categorization in this manner is a

form of lazy strategy, it would have been obvious to one of ordinary skill in the art at the time of the

invention to apply Herz's retraining during Lewak's inactivity periods, so as to provide Lewak the benefit

of increased performance during periods of high user activity.

In regard to dependent claim 62, Lewak teaches user selectable (clickable) categories (Lewak

column 8 lines 19-22, 61-66; compare with claim 62 *"the step of displaying....labeled with one of the*

categorical labels"). Although Lewak does not specifically show this as "buttons", nevertheless, the

limitation of buttons would have been obvious to one of ordinary skill in the art at the time of the

invention, in view of Lewak, because Lewak's teaching of said displayed selectable categories along with

various displayed buttons (Lewak Figure 5 items 50, 60), suggests the use of buttons, providing the

advantage of a familiar graphical construct for choosing categories.

Lewak teaches a "Categorize" button (Lewak Figure 5 item 60). Subsequent to user clicking of

said button, the system of Lewak automatically recategorizes a file, said recategorization involving a file

identification directory containing location information (Lewak column 6 lines 16-32, column 8 lines 61-

67, column 9 lines 5-10, column 10 lines 15-19; compare with claim 62 *"the step of receiving*

representative data....on the category button", and *"the step of labeling the document....without need for*

any other activity by the user.").

In regard to dependent claim 63, claim 63 incorporates substantially similar subject matter as claimed in claim 62, and is rejected along the same rationale.

In regard to dependent claim 64, claim 64 incorporates substantially similar subject matter as claimed in claim 11, and in further view of the following, is rejected along the same rationale.

Lewak teaches a File Control (FC) Manager analyzing a newly created file subsequent to a first save of said file, analyzation is deferred. Lewak's categorization process via said FC Manager is a form of bookkeeping (i.e. storing paths, etc.) (Lewak column 7 lines 55-67; compare with claim 64 *"deferring retraining of the classifier"*, and *"performing bookkeeping operations....folder to another"*). Retraining a classifier has been previously discussed (see rejection of claim 11, above).

Lewak teaches an FC Manager retrieving and analyzing a previously saved path against categorized files, said analyzation triggered by a period of inactivity (Lewak column 7 lines 55-67; compare with claim 64 *"automatically triggering....that have been deferred."*).

In regard to dependent claim 65, Lewak teaches a method whereby a selected file that has been categorized may by recategorized by clicking on a "Categorize" button (Lewak column 9 lines 5-10).

In regard to dependent claim 66, Lewak teaches a method whereby an File Control Manager analyzes a newly created file subsequent to achieving a threshold of a first save of said file (Lewak column 7 lines 55-67).

In regard to dependent claim 67, Lewak teaches a method whereby an FC Manager retrieves and analyzes a previously saved path against categorized files during periods of inactivity (Lewak column 7 lines 55-67).

In regard to dependent claim 68, Lewak teaches a method whereby a selected file that has been categorized may by recategorized by clicking on a "Categorize" button (an "instant" strategy) (Lewak column 9 lines 5-10).

15.   **Claims 37-43, 46, are rejected under 35 U.S.C. 103(a) as being unpatentable over Lewak and Herz as applied to claim 11 above, and further in view of Lang et al. (hereinafter Lang), U.S. Patent No. 5,867,799 issued February 1999.**

In regard to dependent claim 37, Lewak teaches a method whereby a file is categorized using a File Control Manager program, said program containing a File Identification table with file locations associated with file names (Lewak column 1 lines 28-29, 41-45, column 6 lines 17-22, column 8 lines 1-5; compare with claim 37 *"...for each folder..."* and *"...a subset of folders..."*). Lewak does not specifically teach a method whereby the classifying step comprises the steps of tokenizing, tallying/comparing occurrences, computing token weights, creating similarity scores, and identifying folder subsets. However, Lang teaches a method of tokenizing a document into tokens (Lang column 10 lines 31-33, Figure 5 box 301; compare with claim 37).

Lang also discloses a method of computing the term frequency (TF) of a token within a document (Lang column 10 lines 22-23, 29-33; compare with claim 37).

Lang also teaches a method of a computed token weight for a given document (IDF) by multiplying the term frequency by the inverse of the document frequency (Lang column 10 lines 36-38; compare with claim 37, *"computing..."* and *"...a token weight of each token."*).

Lang also teaches a method of comparing a term frequency (TF) and a token weight (IDF) by analyzing the cosine between the computed vectors, the related example disclosed pertains to a single word, or token, from two documents (Lang column 10 lines 50-56, column 23 lines 50-52; compare with claim 37).

Lang also teaches a method of a similarity measure between TF-IDF vectors (Lang column 10

lines 50-52, column 23 lines 48-57; compare with claim 37 line 6).

Lang also teaches a method of self-optimization in the form of a highest credibility value, said

value dependent upon a TF-IDF technique (Lang column 14 lines 8-22; compare with claim 37 line 7,

"identifying...", and *"...for which the similarity score is highest."*).

It would have been obvious to one of ordinary skill in the art at the time of the invention to apply

the TF-IDF related methods of Lang as taught above, to the methods disclosed by Lewak, because of

Lang's taught advantage of adaptive weighting schemes, providing increased predictive accuracy to the

categorization and folder methods as disclosed by Lewak.

In regard to dependent claim 38, Lewak does not specifically teach a method of removing

folders for which a similarity score is lower then a specified threshold. However, Lang teaches a method

of parsing articles, and throwing out tokens occurring less than a preselected threshold (Lang column 12

lines 58-59; compare with claim 38). It would have been obvious to one of ordinary skill in the art at the

time of the invention to apply the method of Lang to the method of Lewak, because of Lang's taught

advantage of selective analyzing, providing increased selective accuracy to the categorization and folder

methods as disclosed by Lewak.

In regard to dependent claim 39, claim 39 incorporates substantially similar subject matter as

claimed in claim 37, and is rejected along the same rationale.

In regard to dependent claim 40, claim 40 incorporates substantially significant subject matter

as claimed in claim 37, and in further view of the following, is rejected along the same rationale.

Lewak teaches a method of categorizing an open file by invoking a File Control Manager via a

"Categorize" button, said manager containing a FID table with a set of columns labeled by file names

and file locations (Lewak column 6 lines 17-22, column 8 lines 1-5). Lewak does not specifically teach a method of separately tokenizing/labeling portions of a document. However, Lang teaches a method for extracting information from a data stream, using at least a portion of each of a user profile (Lang column 5 lines 61-67, column 6 lines 1-3; compare with claim 40). It would have been obvious to one of ordinary skill in the art at the time of the invention to apply the portioning method as taught by Lang to the method of Lewak, because of Lang's taught advantage of partitioning, providing increased file analyzation selectivity to the file method as taught by Lewak.

In regard to dependent 41, claim 41 incorporates substantially significant subject matter as claimed in claims 37 and 39, and in further view of the following, is rejected along the same rationale.

Lewak does not specifically teach a method of adding the number of occurrences of each token to a tokencount of a tofolder. However, Lang teaches a method of a term frequency, which is the number of times a token appears in a document (Lang column 10 lines 30-34; compare with claim 41 "...adding the number of occurrences of each token..."). It would have been obvious to one of ordinary skill in the art at the time of the invention to apply the token count method of Lang to the file name/location association method of Lewak, because of Lang's taught advantage of token counts, providing increased statistical information to the File Control method as taught by Lewak.

In regard to dependent claim 42, claim 42 incorporates substantially significant subject matter as claimed in claim 41, and in further view of the following , is rejected along the same rationale.

Lewak does not specifically teach a method of subtracting the number of occurrences of each token of the fromfolder. However, Lang teaches a method whereby upon parsing of a training set, a specified number of the most frequent tokens are thrown out (subtracted) from the set (Lang column 12 lines 58-59; compare with claim 42 *"...subtracting the number of occurrences of each token from the tokencount of the fromfolder."*). It would have been obvious to one of ordinary skill in the art at the time

of the invention to apply the token subtraction method of Lang to the file name/location association

method of Lewak, because of Lang's taught advantage of token subtraction, providing increased

statistical accuracy to the File Control method as taught by Lewak.

In regard to dependent claim 43, claim 43 reflects the combined subject matter of claims 41

and 42, and is rejected along the same rationale.

In regard to dependent claim 46, claim 46 incorporates substantially similar subject matter as

claimed in claim 41, and is rejected along the same rationale.

16.   **Claims 52, 56-59 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lewak and**

Herz as applied to claim 11 above, and further in view of Using Netscape (hereinafter Netscape),

1995 Que Corporation pp. 55, 67.

In regard to dependent claim 52, Lewak teaches a method whereby an opened file is

categorized by an FC system through the use of a "Categorize" command (Lewak column 8 lines 1-5).

Lewak does not specifically teach a method wherein an electronic document is a web page and the

collection is a set of bookmarks. However, Netscape teaches a method of a bookmark file presented as a

web page (Netscape p.67, 3rd paragraph, Figure 4.4; compare with claim 52). It would have been

obvious to one of ordinary skill in the art at the time of the invention to apply the web page and bookmark

method as disclosed by Netscape to the method of Lewak, because of Netscape's taught advantage of

World Wide Web and bookmarking compatibility, providing increased Internet adaptation and file

retrieval to the file categorization method as taught by Lewak.

In regard to dependent claim 56, Lewak teaches a method whereby an opened file is categorized by an FC system through the use of a "Categorize" command (Lewak column 8 lines 1-5). Lewak does not specifically teach a method wherein an electronic document is a multimedia document. However, Netscape teaches a method of a web page containing graphics, text, and sound (Netscape p.55, Playing Linked Sound Files, Figure 3.9; compare with claim 56). It would have been obvious to one of ordinary skill in the art at the time of the invention to apply the web graphic/sound/text method as disclosed by Netscape to the method of Lewak, because of Netscape's taught advantage of World Wide Web multimedia compatibility, providing increased Internet adaptation to the file categorization method as taught by Lewak.

In regard to dependent claims 57-59, claims 57-59 incorporates substantially significant subject matter as claimed in claim 56, and is rejected along the same rationale.

17.   **Claims 53-55 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lewak, Herz, and Lang as applied to claims 26, 29, 32 above, and further in view of Netscape.**

In regard to dependent claim 53, claim 53 incorporates substantially similar subject matter as claimed in claim 52, and in further view of the following, is rejected along the same rationale.

It would have been obvious to one of ordinary skill in the art at the time of the invention to apply the web page and bookmark method as taught by Netscape to the method of Lewak, because of Netscape's taught advantage of World Wide Web and bookmarking compatibility, providing increased Internet adaptation and file retrieval to the file categorization method as taught by Lewak.

In regard to dependent claim 54, claim 54 incorporates substantially similar subject matter as claimed in claim 53, and is rejected along the same rationale.

In regard to dependent claim 55, claim 55 incorporates substantially significant subject matter

as claimed in claim 54, and is rejected along the same rationale.

Response to Arguments

18.   Applicant's arguments filed 2/8/2002, have been fully and carefully considered but they are not

persuasive.

Applicant argues on page 5 of the amendment that a teaching or suggestion to make a claimed

combination must both be found in the prior art and not based on Applicant's disclosure. The examiner

respectfully notes that motivation to combine can originate from the knowledge of the skilled artisan at

the time of the invention. In the instant case, updating a user profile so that it dynamically responds to

changing tastes is a benefit the skilled artisan is aware of, since it is typical for users to re-index and

re-categorize documents over time.

Applicant argues on pages 5-6 of the amendment that the cited references do not teach the

claimed limitations. The examiner notes that Lewak's File Control Management program analyzes a

saved file during "null events" (i.e. periods of inactivity), which can be interpreted as a "lazy strategy", or

a "lazy evaluation". The examiner applies Herz's method of categorizing text messages to Lewak,

especially performing Herz's method during Lewak's inactive time periods.

Conclusion

19.   Any inquiry concerning this communication or earlier communications from the examiner

should be directed to William Bashore whose telephone number is **(703) 308-5807**. The examiner can

normally be reached on Monday through Friday from 11:30 AM to 8:00 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor,

Heather Herndon, can be reached on **(703) 308-5186**.

Any inquiry of a general nature or relating to the status of this application should be directed to

the Group receptionist whose telephone number is **(703) 305-3900**.

20.   **Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks
Washington, D.C. 20231

or faxed to:

(703) 746-7239 (for formal communications intended for entry)
or:
(703) 746-7240 (for informal or draft communications, please label
"PROPOSED" or "DRAFT")
or:
(703) 746-7238 (for after-final communications)

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive,
Arlington, VA, Fourth Floor (Receptionist).

William L. Bashore
February 20, 2003

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